APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/616,977	07/14/2000	Aviad Zlotnick	6727/OH417	7345

7590   10/21/2004

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EXAMINER
SCHLAIFER, JONATHAN D

ART UNIT	PAPER NUMBER
2178	

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/616,977	ZLOTNICK, AVIAD
	Examiner	Art Unit
	Jonathan D. Schlaifer	2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 June 2004*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-37* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *14 July 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All   b)☐ Some * c)☐ None of:
   1.☐ Certified copies of the priority documents have been received.
   2.☐ Certified copies of the priority documents have been received in Application No. _____.
   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1. This action is responsive to amendment to application 09/616,977 filed on 6/1/2004.

2. Claims 1, 4-19, and 22-37 are pending in the case. Claims 2-3 and 20-21 have been canceled. Claims 1, 5-7, 9, 19, 23-24, and 35-36 have been amended. Claims 1, 12, 19, 30, 35, and 37 are independent claims.

3. The rejections of claims 1, 4-7, 10-16, 18-19, 22-25 and 28-37 under 35 U.S.C. 103 as being unpatentable over Lopresti, further in view of Motoiwa have been withdrawn as necessitated by amendment.

4. The rejection of claim 17 under 35 U.S.C. 103 as being unpatentable over Lopresti, further in view of Motoiwa, further in view of Walker has been withdrawn as necessitated by amendment.

5. The rejections of claims 8 and 26 under 35 U.S.C. 103 as being unpatentable over Lopresti, further in view of Motoiwa, further in view of Bradford have been withdrawn as necessitated by amendment.

6. The rejections of claims 9 and 27 under 35 U.S.C. 103 as being unpatentable over Lopresti, further in view of Motoiwa, further in view of Medina have been withdrawn as necessitated by amendment.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 1, 4-7, 10-11, 19-20, 22-25 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lopresti et al. (USPN 5,625,721—filing date 4/6/1994), hereinafter Lopresti, further in view of Motoiwa (USPN 6,343,149 B1—filing 5/7/1999), further in view of Sultan (USPN 6,270,406 B1—filing date 7/26/1999).**

8. **Regarding independent claim 1,** Lopresti discloses a method for processing a document including a field containing information in a predefined domain (Lopresti discloses in the Abstract that the invention applies OCR to fields), defining a directory of data relating to the predefined domain (in col. 2, lines 24-40, the OCR is checked via dictionary), processing the image code the information, and looking up the coded information directory so as to check whether the information is coded correctly (in col. 2, lines 24-40, the OCR is checked via dictionary). Lopresti fails to disclose receiving a client via a computer network images of a number of fields contain the information. However, Motoiwa discloses receiving from a client via a computer network an image of the field containing the information in col. 5, lines 45-67 and col. 6, lines 1-20, in order to facilitate information access on a remote basis. It was notoriously well known in the art at the time of the invention that useful processes could be repeated, leading to the use of images of a number of fields containing respective information. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used Lopresti's invention in combination with a network in order to have facilitated information access on a remote basis. Lopresti fails to disclose a method comprising returning the checked, coded information over the network to the client. However,

Motoiwa discloses receiving from a client via a computer network an image of the field

containing the information in col. 5, lines 45-67 and col. 6, lines 1-20, in order to

facilitate information access on a remote basis. It was notoriously well known in the art

at the time of the invention that processed information was often returned to clients to

make information directly available to users. It would have been obvious to one of

ordinary skill in the art at the time of the invention to use a network to return information

to the client because this would have made information directly available to users.

Lopresti and Motoiwa fail to disclose a method wherein receiving the image of the field

comprises receiving a number of fields filled in with respective information, regarding

which the checked, coded information is return to the client, and comprising receiving

payment from the client according to the number of fields. However, Sultan discloses

that payment for a winning lottery ticket is based upon the proper number of fields being

uncovered in col. 3, lines 20-40. It would have been obvious to one of ordinary skill in

the art at the time of the invention to combine Sultan's technique of checking the number

of fields before allowing a payment with Lopresti and Motoiwa's invention because in

both cases, the number of fields is related to the value of the item being processed and

making a payment based upon the number of fields would help to maintain the

relationship.

9. **Regarding dependent claim 4,** Lopresti, as noted in col. 2, lines 24-40, discloses

checking the OCR results with a dictionary. It was notoriously well known in the art at

the time of the invention that checking OCR results requires selecting a dictionary that

corresponds with the results to be checked (i.e. appropriate language, etc.) in order to

obtain maximum accuracy. It would have been obvious to one of ordinary skill in the art at the time of the invention to select data specific to the predefined domain from one or more general databases in order to obtain maximum accuracy.

10. **Regarding dependent claim 5,** Lopresti is receiving data to be processed for OCR recognition, which inherently implies receiving an image of alphanumeric characters in the fields.

11. **Regarding dependent claim 6,** Lopresti discloses in col. 5, lines 10-25 the use of marked text blocks to delineate regions for OCR. This constitutes a method wherein the document includes a template delineating the fields, and where receiving the image of the characters comprises receiving the image of the characters filled in to the fields and remaining after drop-out of the template from the image of the fields.

12. **Regarding dependent claim 7,** Lopresti's invention is receiving data to be processed for OCR recognition (see Abstract).

13. **Regarding dependent claim 10,** in col. 2, lines 24-40 of Lopresti, the OCR is checked and corrected via dictionary.

14. **Regarding dependent claim 11,** in col. 2, lines 24-40 of Lopresti, the OCR is checked and corrected via dictionary.

15. **Regarding independent claim 19,** it is an apparatus for processing a document that performs the method of claim 1, and is rejected under similar rationale.

16. **Regarding dependent claim 20,** it is an apparatus for processing a document that performs the method of claim 2, and is rejected under similar rationale.

17. **Regarding dependent claim 22,** it is an apparatus for processing a document that performs the method of claim 4, and is rejected under similar rationale.

18. **Regarding dependent claim 23,** it is an apparatus for processing a document that performs the method of claim 5, and is rejected under similar rationale.

19. **Regarding dependent claim 24,** it is an apparatus for processing a document that performs the method of claim 6, and is rejected under similar rationale.

20. **Regarding dependent claim 25,** it is an apparatus for processing a document that performs the method of claim 7, and is rejected under similar rationale.

21. **Regarding dependent claim 28,** it is an apparatus for processing a document that performs the method of claim 10, and is rejected under similar rationale.

22. **Regarding dependent claim 29,** it is an apparatus for processing a document that performs the method of claim 11, and is rejected under similar rationale.

23. **Claims 8 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lopresti, further in view of Motoiwa, further in view of Sultan, further in view of Bradford (USPN 5,805,747—filing date 1/13/1997)**

24. **Regarding dependent claim 8,** Lopresti, Motoiwa, and Sultan fail to disclose a method wherein looking up the coded information comprises selecting a preferred reading of the characters from among two or more possible readings generated by the OCR, responsive to the data in the directory. However, Bradford discloses the use of multiple OCR readings in order to increase OCR accuracy. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Lopresti, Motoiwa, and Sultan's inventions in conjunction with Bradford's in order to increase OCR accuracy.

25. **Regarding dependent claim 26,** it is an apparatus for processing a document that

performs the method of claim 8, and is rejected under similar rationale.

26. **Claims 9 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Lopresti, further in view of Motoiwa, further in view of Sultan, further in view of

Medina (USPN 5,889,897—filing date 4/8/1997)

27. **Regarding dependent claim 9,** Lopresti, Motoiwa, and Sultan fail to disclose a method

wherein looking up the coded information comprises generating a confidence score, and

wherein processing the images comprises passing the images to a human operator for

coding when the confidence score is below a predetermined threshold. However,

Medina, in col. 3, lines 60-67 and col. 4, lines 1-14 describes how confidence scores are

generated and human correction is used as a backup in order to maximize accuracy of the

OCR data. It would have been obvious to one of ordinary skill in the art at the time of

the invention to use Medina's method of correcting the OCR data from Lopresti,

Motoiwa, and Sultan in order to maximize accuracy of the OCR data.

28. **Regarding dependent claim 27,** it is an apparatus for processing a document that

performs the method of claim 9, and is rejected under similar rationale.

29. **Claims 12-18 and 30-37 are rejected under 35 U.S.C. 103(a) as being unpatentable**

over Lopresti, further in view of Motoiwa, further in view of Sultan, further in view

of Brown (USPN 6,498,612 B1—filing date 9/22/1998).

30. **Regarding independent claim 12,** it is a method for processing forms that is analogous

to the document processing method of claim 1, and is rejected under similar rationale.

However, one limitation that differentiates claim 12 that is not discloses in Lopresti,

Motoiwa, or Sultan, is the limitation of defining a directory of data relating to the

predefined domain by selecting data specific to the domain form one or more general

databases. However, this limitation is disclosed in Brown in col. 6, lines 35-55. It would

have been obvious to one of ordinary skill in the art at the time of the invention to

combine Brown's innovation of the data directory with Lopresti, Motoiwa, and Sultan

because it makes it easier to find information (see col. 6, lines 39-40).

31. **Regarding dependent claim 13,** it was notoriously well known in the art at the time of

the invention that checking whether a set of information is correct requires checking

whether its parts are correct, in order to assure accuracy. It would have been obvious to

one of ordinary skill in the art at the time of the invention to verify the coded information,

because it would have been a necessary part of ensuring the accuracy of the information

as a whole.

32. **Regarding dependent claim 14,** Lopresti's invention is receiving data to be processed

for OCR recognition (see Abstract).

33. **Regarding dependent claim 15,** Lopresti discloses performing OCR (see Abstract) and a

dictionary lookup in col. 2, lines 24-40, which satisfy the limitations of the claim.

34. **Regarding dependent claim 16,** it is a method for processing forms that is analogous to

the document processing method of claim 2, and is rejected under similar rationale.

35. **Regarding dependent claim 17,** Lopresti and Motoiwa fail to disclose receiving

payment from the client according to a number of the forms for which the correctness of

the information in the field was checked. However, in col. 3, lines 30-35 of Sultan, the

validation of the fields requires that the fields tabulated be valid fields by scanning codes.

It would have been obvious to one of ordinary skill in the art at the time of the invention

to have the fields be checked for validity because it would help to verify the accuracy of

the data being manipulated.

36. **Regarding dependent claim 18,** it is a method for processing forms that is analogous to

the document processing method of claim 11, and is rejected under similar rationale.

37. **Regarding independent claim 30,** it is a forms processing apparatus that performs the

method of claim 12, and is rejected under similar rationale.

38. **Regarding dependent claim 31,** it is a forms processing apparatus that performs the

method of claim 13, and is rejected under similar rationale.

39. **Regarding dependent claim 32,** it is a forms processing apparatus that performs the

method of claim 15, and is rejected under similar rationale.

40. **Regarding dependent claim 33,** it is a forms processing apparatus that performs the

method of claim 16, and is rejected under similar rationale.

41. **Regarding dependent claim 34,** it is a forms processing apparatus that performs the

method of claim 18, and is rejected under similar rationale.

42. **Regarding independent claim 35,** it is a computer software product on a computer

readable medium that encodes the method of claim 1, and is rejected under similar

rationale.

43. **Regarding independent claim 36,** it is a computer software product on a computer

readable medium that encodes the method of claim 14, and is rejected under similar

rationale.

44. **Regarding independent claim 37,** it is a computer software product on a computer

readable medium that encodes the method of claim 12, and is rejected under similar

rationale.

Response to Arguments

45. Applicant's arguments with respect to claims 1-37 have been considered but are moot.in

view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 5,987,471 (filing date 11/13/1997)—Bodine et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan D. Schlaifer whose telephone number is (571) 272-4129. The examiner can normally be reached on 8:30-5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS

**SANJIV SHAH
PRIMARY EXAMINER**